

Serial No.: 09/423,356

REMARKS

Claims 1-24 remain herein. No changes to the claims are made in this paper.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached pages are captioned "Version with Markings to Show Changes Made."

The specification, page 5, last paragraph, has been amended to replace the word "Claim" with "Aspect."

Applicants respectfully request the Examiner to provide an initialed copy of PTO Form 1449 indicating receipt and consideration of references accompanying an Information Disclosure Statement filed November 23, 1999.

1. Claims 1 and 13 were rejected under 35 U.S.C. §103(a) over Williams U.S. Patent 6,259,443 and the admitted prior art described in applicants' specification. The rejection is traversed.

Serial No.: 09/423,356

The presently claimed transmission apparatus comprises a master station for transmitting video or audio by utilizing a first minute-power wave; a slave station for transmitting video or audio by utilizing a second minute-power wave; and a relay station located between the master station and the slave station, the master and slave stations being located apart from each other by a distance longer than the reachable range of a first minute-power wave. This arrangement and corresponding method are nowhere disclosed or suggested in any of the cited references.

Williams '443 is cited for disclosing user input manager 123 constituting a set top box, channel register 124, and coordinating process 121, allegedly corresponding to the master station, the slave station, and the relay station, respectively. Applicants disagree. In Williams '443, the transfer of signals between these stations is performed with wires, and these stations are located within extremely close range to each other, i.e., physically within the same apparatus. This arrangement is contrary to the limitation affirmatively recited in claims 1

Serial No.: 09/423,356

and 13 reading: "said master and slave stations located apart from each other by a distance longer than the reachable range of a first minute-power wave." In Williams '443, the input manager 123 constituting a set top box, channel register 124 and coordinating process 121 are not located apart from each other by a distance longer than the reachable range of a first minute-power wave, as recited by applicants' claims 1 and 13. The reference provides no reason why there should be a separation as claimed.

Moreover, Williams '443 does not perform relaying over a distance longer than the reachable range of the minute-power wave, as in the presently claimed invention. Accordingly, Williams '443 does not disclose providing a relay station to solve the problem of a limited reachable range of the minute-power wave when transmitted between the master station and the slave station, as in the presently claimed invention.

Further, although the admitted prior art discussed in applicants' specification describes a relay station, such station does not perform bidirectional transmission between the

Serial No.: 09/423,356

master station and the slave station, as recited in the last subparagraph of applicants' claims 1 and 13. Also, the admitted prior art differs from the presently claimed invention, which realizes full duplex transmission by receiving the radio wave from the master station, performing the frequency conversion to the received radio wave, and transmitting the converted radio wave to the slave station. The admitted prior art does not disclose such features.

For the foregoing reasons, neither Williams '443 or admitted prior art described in applicants' specification contains any teaching, suggestion, reason, motivation or incentive that would have led one of ordinary skill in the art to applicants' claimed invention. Nor is there any disclosure or teaching in either of these references that would have suggested the desirability of combining any portions thereof effectively to suggest applicants' presently claimed invention. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Serial No.: 09/423,356

2. Claims 2 and 14 were rejected under 35 U.S.C. §103(a) over Williams '443, admitted prior art described in applicants' specification, and Oguro et al. U.S. Patent 6,282,266. The rejection is likewise traversed.

Claims 2 and 14 depend from claims 1 and 13, respectively, and therefore are allowable for the same reasons as claims 1 and 13 are allowable.

Oguro '266 is cited and is said to teach superposing a signal, which is not the video signal, onto the video signal during the blanking period; applicants' admitted prior art is cited for disclosing use of television signals. However, the admitted prior art and Oguro '266 do not overcome the above described deficiencies of Williams '443.

For the foregoing reasons, none of Williams '443, Oguro '266 or applicants' admitted prior art contains any teaching, suggestion, reason, motivation or incentive that would have led one of ordinary skill in the art to applicants' claimed invention. Nor is there any disclosure or teaching in either of these references that would have suggested the desirability of

Serial No.: 09/423,356

combining any portions thereof effectively to suggest applicants' presently claimed invention. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

3. Claims 3-12 and 14-24 were rejected under §103(a) over Matsuda et al. U.S. Patent 5,794,116 in view of Oguro '266. The rejection is traversed also.

Matsuda '116 is said to disclose a system that converts frequencies within the range of a frequency list. The Examiner admits that Matsuda '116 does not disclose a converter associated with a standard television signal and an RF tuner which receives the television signals, and cites Oguro '266 as allegedly disclosing such converter and tuner. However, Matsuda '116 also does not perform the spread spectrum communication between the master station and the slave station, as recited in applicants' claims 3, 14 and 15.

Instead, Matsuda '116 relates to a wireless LAN system in which the master station and the slave station are movable

Serial No.: 09/423,356

within the reachable range of the radio wave, and further, Matsuda '116 does not disclose that the range of the use frequency is within the range of the standard television signal, as recited by applicants' claims 3, 14 and 15. Matsuda '116 does not teach or suggest any benefits or desirability for operating within the range of a standard television signal.

Moreover, Oguro '266 discloses merely a converter associated with the standard television or video signal, to perform digital recording/reproduction of the standard television signal to/from magnetic tape media and receiving the television signals, and does not disclose apparatus for switching the frequency within the band of the standard television signal, as recited in applicants' claims 3, 13 and 15. Such a concept is found only within applicants' disclosure and not in the cited art.

Therefore, even if a person skilled in the art were to modify Matsuda '116 according to the teachings of Oguro '266, the result could not be applicants' system for performing the frequency spread spectrum communication between the master

Serial No.: 09/423,356

station and the slave station, with means for seeking a vacant frequency within the band of the standard television or video signal.

For the foregoing reasons, neither Matsuda '116 or Oguro '266 contains any teaching, suggestion, reason, motivation or incentive that would have led one of ordinary skill in the art to applicants' claimed invention. Nor is there any disclosure or teaching in either of these references that would have suggested the desirability of combining any portions thereof effectively to suggest applicants' presently claimed invention. Claims 4-12, which depend from claim 3, and claim 14, which depends from claim 13, and claims 16-24, which depend from claim 15, are allowable for the same reasons as claims 3, 13 and 15, respectively, are allowable. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

All claims 1-24 are now proper in form and patentably distinguish over all grounds of rejection cited in the Office Action. Accordingly, allowance of all claims 1-24 is respectfully requested.

Serial No.: 09/423,356

Should the Examiner deem that any further action by the applicants would be desirable to place this application in even better condition for issue, the Examiner is requested to telephone applicants' undersigned representatives.

Respectfully submitted,

PARKHURST & WENDEL, L.L.P.



Charles A. Wendel
Registration No. 24,453
Robert N. Wieland
Registration No. 40,225

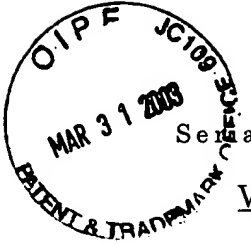
March 31, 2003
Date

CAW:RNW/mhs

Attachments: Version with Markings
to Show Changes Made

Attorney Docket No.: HYAE:093

PARKHURST & WENDEL, L.L.P.
1421 Prince Street, Suite 210
Alexandria, Virginia 22314-2805
Telephone: (703) 739-0220



Serial No.: 09/423,356

Atty. Dkt. No.: HYAE:093VERSION WITH MARKINGS TO SHOW CHANGES MADE

DISCLOSURE OF THE INVENTION

In order to solve the above-described problems, the invention described in ~~Claim~~Aspect 1 comprises a master station transmitting video or audio by utilizing a minute-power wave; a slave station transmitting video or audio by utilizing a minute-power wave; and a relay station placed between the master station and the slave station which are placed apart from each other by a distance longer than the reachable range of the minute-power wave; wherein a transmission signal from the master station includes, in addition to original information such as video or audio, information indicating the address of the slave station, and information indicating a frequency at which the self-station receives a signal from the relay station; the relay station modulates the frequency of the minute-power wave received from the master station to a different frequency and outputs it; the relay station transmits information about a frequency at which the self-station receives a signal from the slave station; and when the slave station recognizes that the transmission signal is a signal directed to the self-station, it modulates the minute-power wave to the frequency specified by the relay station and transmits the video or audio, thereby establishing a transmission path between the master station and the slave station.

This invention enables transmission of video or audio by utilizing a minute-power wave, even when the distance between the